maxspect

mazarra **LED Lighting System**

S-Series Owner's Manual

Innovative, efficient and versatile.

Dear Customer,

Thank you for purchasing this product.

For optimum performance and safety, please read these instructions carefully.

User Memo:

Date of purchase:	
Dealer name:	
Dealer address:	
Dealer website:	
Dealer email:	
Dealer phone no.:	
Product:	☐ LED Module ☐ Mounting Frame Set ☐ Power Supply Unit

Please visit us on facebook or twitter!

https://www.facebook.com/pages/Maxspect-LED/283406251689606

http://twitter.com/maxspectled

Please check the content in the package.

LED Module

Ball Joint Mount

Rail System

Power Supply

Cooling Fan

T-Joint Cable

Cable Organizer

Optic Lens Sets (100°/70°/40°)

Accessories

Before using this Maxspect™ Mazarra LED Lighting System please read these operating instructions carefully. Take special care to follow the safety suggestions listed below.

Afterwards keep this manual handy for future reference.

Before using the Maxspect™ Mazarra LED Lighting System

1. Remove any protective film covering the lens of the LED bulbs before use.
2. Never look directly at the LED bulbs when you switch on the system. Incorrect use of this apparatus will increase eye hazard.
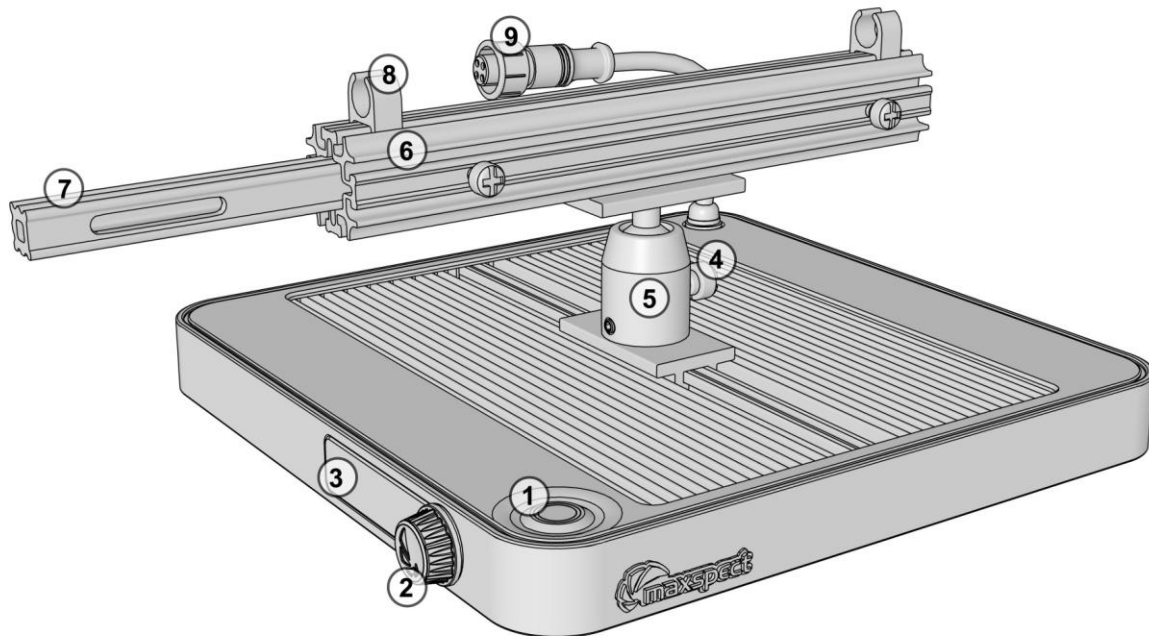
On Safety

1. **Power Source** – Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
2. **Power Cord Protection** – The power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them. Never take hold of the plug or cord if your hand is wet, and always grasp the plug body when connecting or disconnecting it.
3. **Installation** – Install indoor only, and use the attachments, mounting frames, hanging kit and accessories provided and specified by the manufacturer.

On Operation

1. **Operation** – Always follow the operation instructions set forth in this manual when using this Mazarra LED Lighting System.
2. **Heat** – The apparatus should be situated away from heat sources such as radiators, and do not expose to excessive heat such as sunshine, fire or the like.
3. **Moisture** – To reduce the risk of fire or electric shock, do not expose this apparatus to rain, moisture, dripping or splashing.
4. **Ventilation** – The apparatus should be situated so that its location or position does not interfere with its proper ventilation.
5. **Magnetism** – The apparatus should be situated away from equipment or devices that generate strong magnetism.
6. **Cleaning** – Clean only with dry cloth.

LED Module

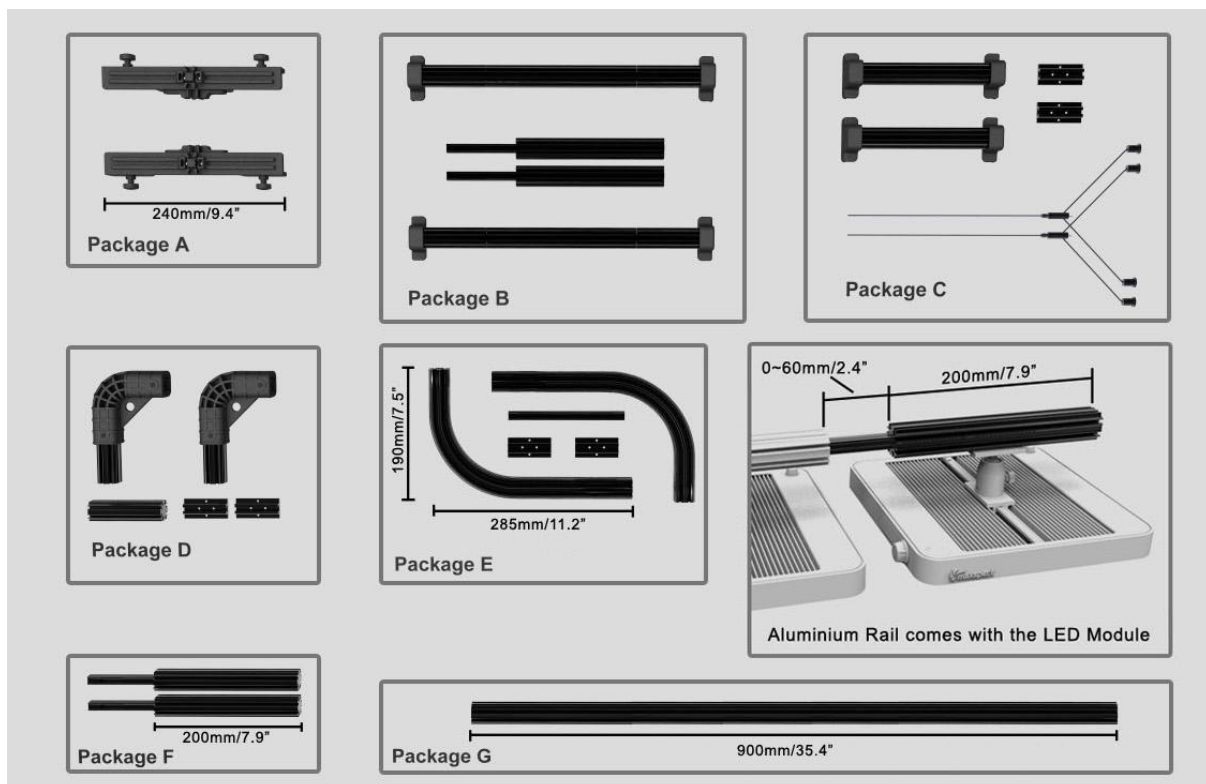|				
1	Select Button	**6**	Rail System
2	Control Dial	**7**	Rail Connector
3	LCD Display	**8**	Cable Organizer
4	Thumb Screw	**9**	Power Supply Cable
5	Ball Joint Mount		

Mounting the Mazarra LED Lighting System

Before connecting the LED Modules to Power Supply, first mount the system by using the provided Frame Set.

1. Assemble the Frame Set.

Assemble the frame set by connecting sections together to form a secured structure, as illustrated in the following diagrams.
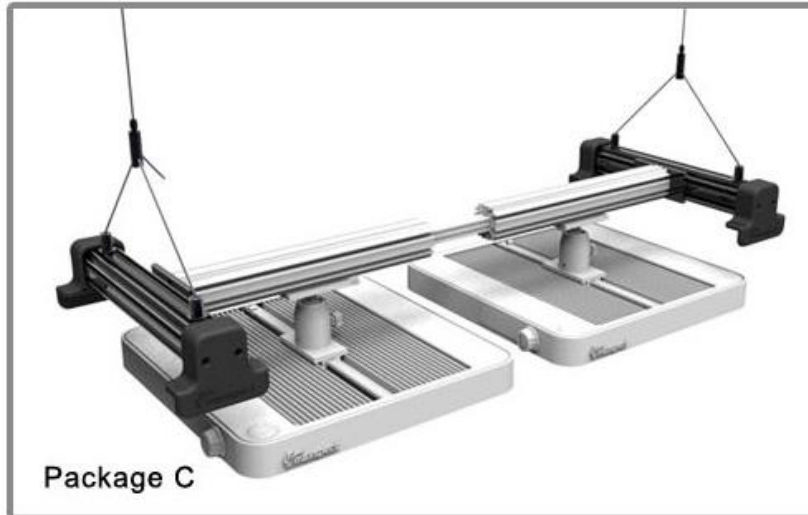
> **Note**
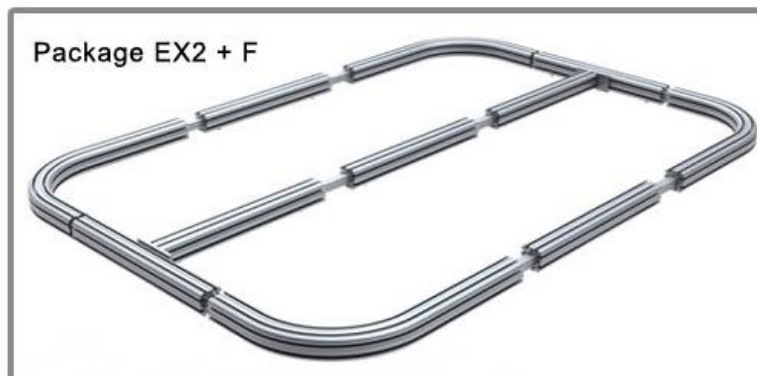
Standard Frame Set Packages are illustrated below:

2. Pendant Mounting

For a single row configuration, you can assemble the frame set as illustrated below:

Package C

For multiple-row configuration, you can assemble the frame set as illustrated below:
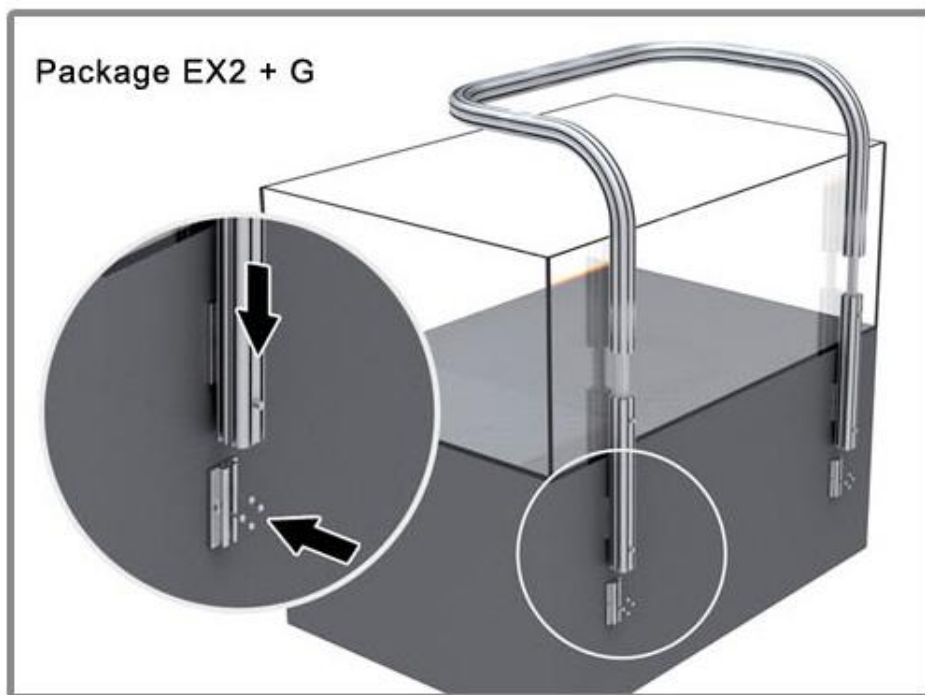

Package EX2 + F

3. Mounting inside the Canopy

You can mount the system onto the top of your canopy as illustrated below:

4. Mounting on Cabinet / Stand

You can mount the system on the cabinet / stand of your aquarium as illustrated below.
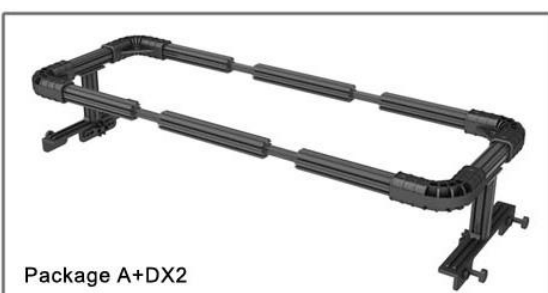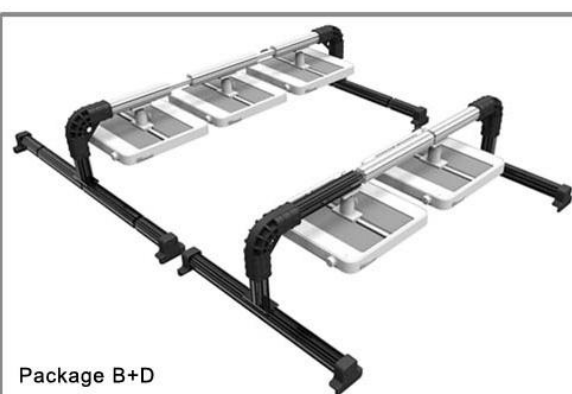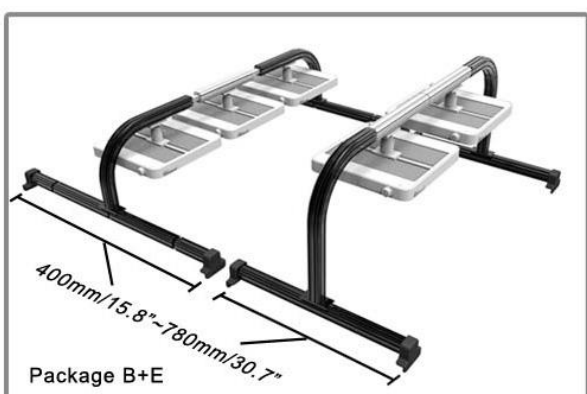

5. Mounting on Wall

You can mount the system on wall as illustrated below.

6. Mounting on Aquarium

You can mount the system on your aquarium by resting the frame on the glass/acrylic panels as illustrated below.

Package A+D

Package A+E

400mm/15.8"~780mm/30.7"

Package B+E

Package B+D

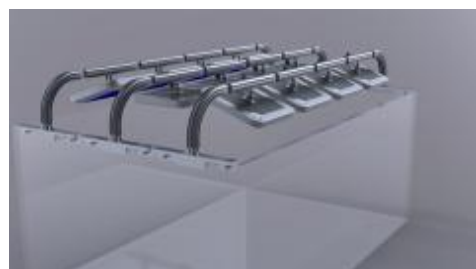
Package A+DX2

Package AX2+DX2+FX3

Note

The maximum width of the glass/acrylic the stand can fit onto is 20mm (3/4"). The stand can be mounted on top of the glass/acrylic panel or sideway on support beams found on larger aquariums.

7. Mounting and positioning the LED Lighting System

Depends on the dimensions of your aquarium, there are many different configurations you could mount and position the Mazarra LED Lighting System.

Powering the Mazarra LED Lighting System

A sample connection configuration utilizing 2 LED Modules

1. **Each Power Supply can power up to 2 LED Modules.**

2. **For additional LED Modules, you must connect more Power Supplies.**

WARNING: Use only Maxspect™ Mazarra S-Series Power Supply for S-Series LED Modules. Do not connect more more than 2 LED Modules to one Power Supply as doing so may cause damage to the Power Supply!!
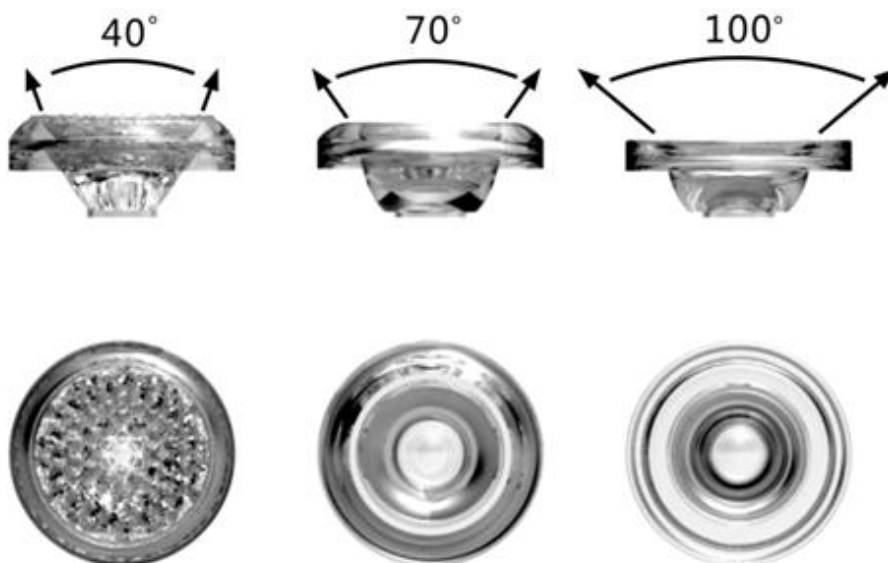
Optics

Each Mazarra LED Module comes with three sets of optics, ranges from 100°, 70° to 40° (factory default is 100°). Installing optics will enhance penetration of light over a greater depth of water by converging light from the LED bulbs, but at the same time reducing the coverage area.

By mix-and-matching different types of optics to be installed, you would be able to customize the overall appearance and performance of your Mazarra LED Lighting System.
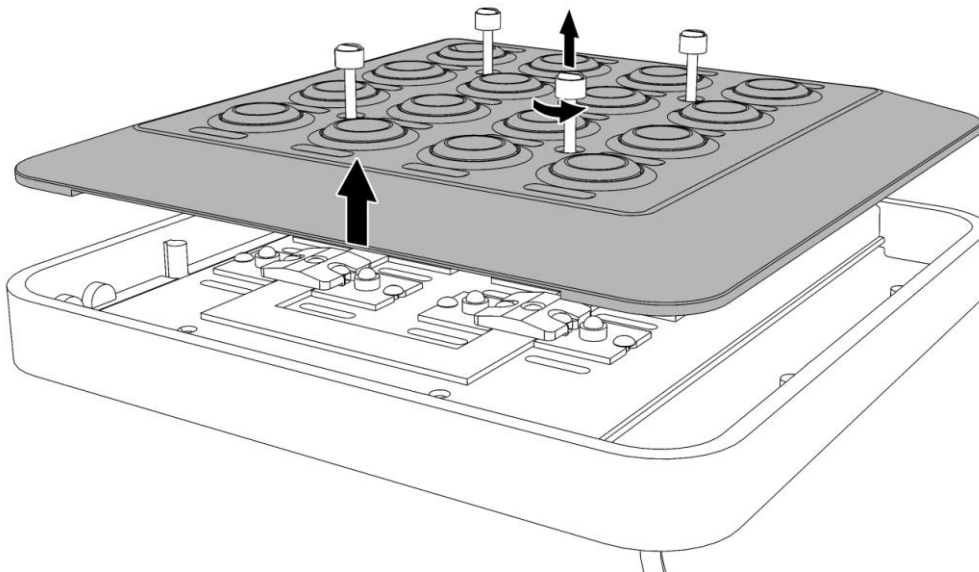
Note

You must install one of the three types of optics on every bulb. The optics also serves as a protective barrier that prevents water and moisture from damaging the LED bulbs.

WARNING: Installing the 40° optics will converge light into a narrow beam, incorrect usage of optics may result in bleaching of your corals from over-exposure to high intensity light.
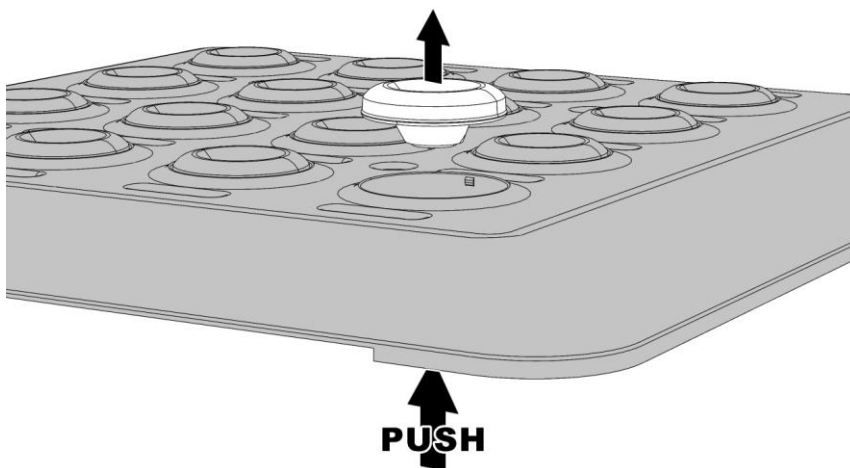
Installing / Changing Optics

1. Using a small slotted screwdriver, carefully remove the screws on the bottom panel and remove it.

2. Push the optics out of the bottom panel.

PUSH

3. Place the new optics over the slot and apply pressure on it until you hear it snaps.

Passive / Active Cooling

With the new Cree XLamp® XM-L chip, higher efficiency means less power is consumed and the Mazarra runs cooler than its predecessors. Together with an ingenious aerodynamic design, the Mazarra is passively cooled when warm air passes through its aluminum chassis.

Nonetheless, in the situation where you do need to actively cool your LED Module, for example, your Mazarra is installed in a confined space such as a canopy, you can install the optional fan by following the below instructions.
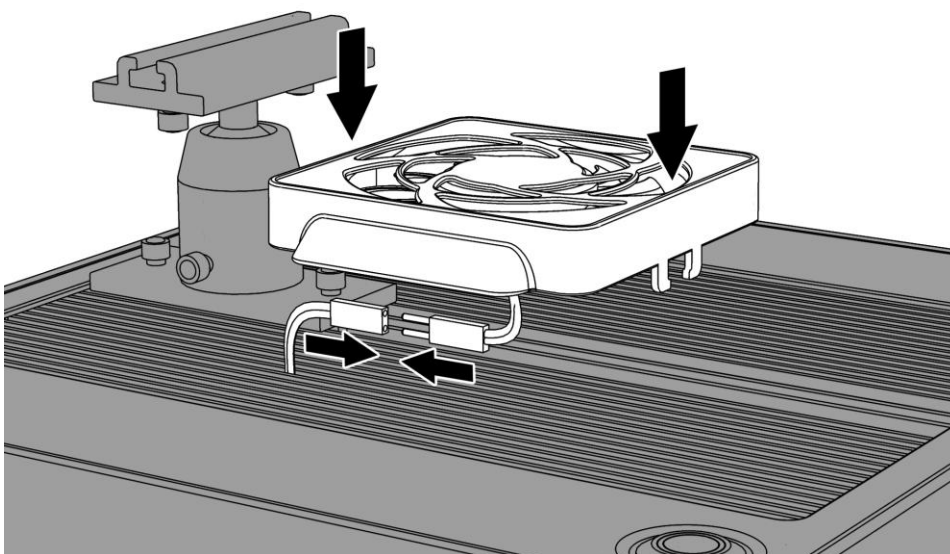
Note

The fan is temperature controlled, it will only turn on when the temperature rises above a preset value (see Operating Instructions on the LED Module and Controller Unit). Installing the optional fan will ensure the module runs at optimal temperature and prolong the lifespan of LED Bulbs.

Installing the Optional Fan

1. **Insert the fan onto the slot as indicated by the diagram below, and connect the power cable.**
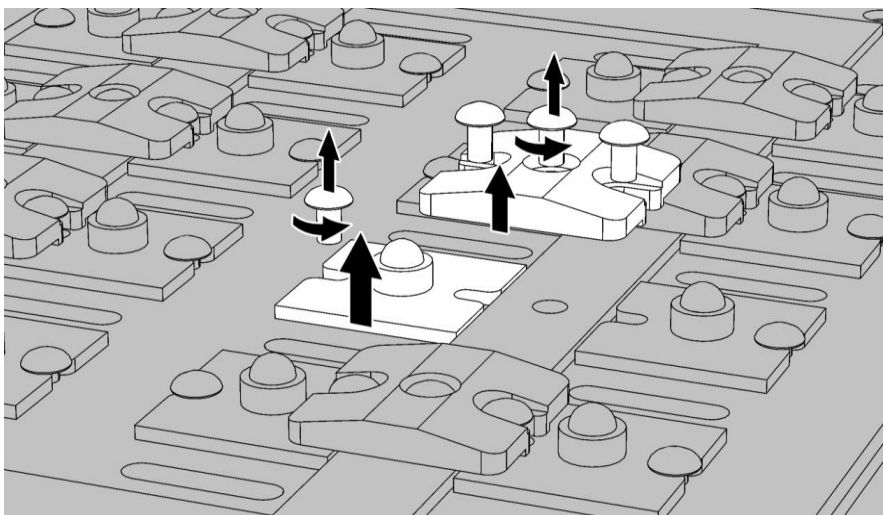
Changing / Replacing LED Bulbs

The Mazarra is the only LED Lighting System available on the market that offers both plug-and-play LED bulb replacement design and LED bulbs covering the entire color spectrum, allowing maximum customization and flexibility.

By mix-and-matching colored LED bulbs, Mazarra allows you to pick the right color spectrum for your aquarium, and bring out that color from your corals exactly like you have always dreamed of.

WARNING: Install only Maxspect™ LED Bulbs onto Mazarra LED Modules. Installing unauthorized or aftermarket LED Bulbs onto Mazarra LED Modules will void your warranty!!

WARNING: Prior to installing LED Bulbs, you must ensure you are using the correct wattage and driving current for the LED Bulb. Using a wrong wattage and/or driving current could shorten the lifespan of bulb or even damage it!!

1. **Open the LED Module the same way as you would replace Optics.**

Please refer to "Installing / Changing Optics" section for detail instructions.

2. **Carefully loosen and remove the screws, then lift the clasp holding the LED Bulb chip to replace it.**

3. **When finished, return the clasp to its original position and tighten the screws.**

The LED Module

Follow the instructions below to operate and program the LED Module.

Note

The LED Module turns on automatically when power is connected, and turns off when power is cut.
When power is resumed, the LED Module will restore to the previous saved setting automatically, whether it was last set at Standalone Mode or Connected Mode, and the intensity level of all the LED channels.
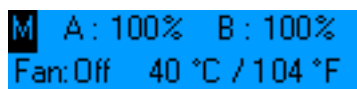
Switching between Manual and Automatic Mode

1. Press and hold ⊚ **Select Button for 2 seconds to switch between Manual Mode and Automatic Mode.**

2. Press ⊚ **Control Dial to turn on the backlight on the LCD Display.**

The backlight will turn off automatically after 30 seconds of idling.

LED Module Status

1. Intensity of the 2 LED channels, temperature of the LED Module and status of the fan will be shown on the LCD Display.

```
M  A:100%  B:100%
Fan:Off  40 °C / 104 °F
```

```
A  12:00  1 2  3  4
   A:100%  B:100%
```

LED Module – Manual Mode

In Manual Mode, you can adjust the intensity of the 2 LED channels and Active Cooling setting directly from the LED Module.

Turning on the LED Channels

1. **Press** ⊚ **Select Button to turn on all 2 LED channels simultaneously.**

2. **Press** ⊚ **Select Button the button again to turn them off.**

Control the LED Module in Manual Mode

1. **Press and hold** ⊚ **Control Dial for 3 seconds to enter setup. Channel A will be selected first.**

M A: 100% B : 100%
S 40 °C / 104 °F

2. **To adjust brightness of the selected channel, rotate** ⊚ **Control Dial.**

Rotate clockwise will increase the brightness and vice versa.

3. **Press** ⊚ **Control Dial to switch to the next LED channel. Repeat #2 for channel B.**

4. **Press** ⊚ **Control Dial again to adjust the Active Cooling setting.**

Active Cooling means the minimum temperature the LED Module must reach before the fan will be turned on automatically.

5. **To adjust the temperature, rotate** ⊚ **Control Dial.**

There are 5 settings: 40°C/104°F, 45°C/113°F, 50°C/122°F, 55°C/131°F and 60°C/140°F.

6. **When finished, press and hold** ⊚ **Control Dial to save the setting.**

The setting is now saved.
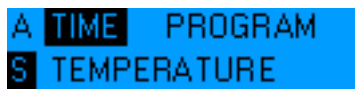
LED Module – Automatic Mode

In Automatic Mode, you can program the photo-period to have the LED Modules turn on and off by itself.

Setting the Clock

This Mazarra LED Lighting System incorporates a 24-hour clock. The clock must be set for the Automatic Mode programs to operate correctly.

1. **Press and <u>hold</u> 🎛 Control Dial for 3 seconds to enter setup.**

   You will see three settings here, Time, Program and Temperature.

   ```
   A TIME  PROGRAM
   S TEMPERATURE
   ```

2. **Rotate 🎛 Control Dial to select TIME and press 🎛 Control Dial.**

   You can now set the clock.

   ```
   A TIME:
   S      12:00
   ```

3. **Rotate 🎛 Control Dial to change the hour digit, press 🎛 Control Dial to confirm, repeat for the minute digit.**
   The clock is now set.

4. **Press 🔘 Select Button to return to the previous setup menu.**

Setting up Photoperiod Programs

The LED Module can be programmed to control the photoperiod and brightness of the system throughout the day.
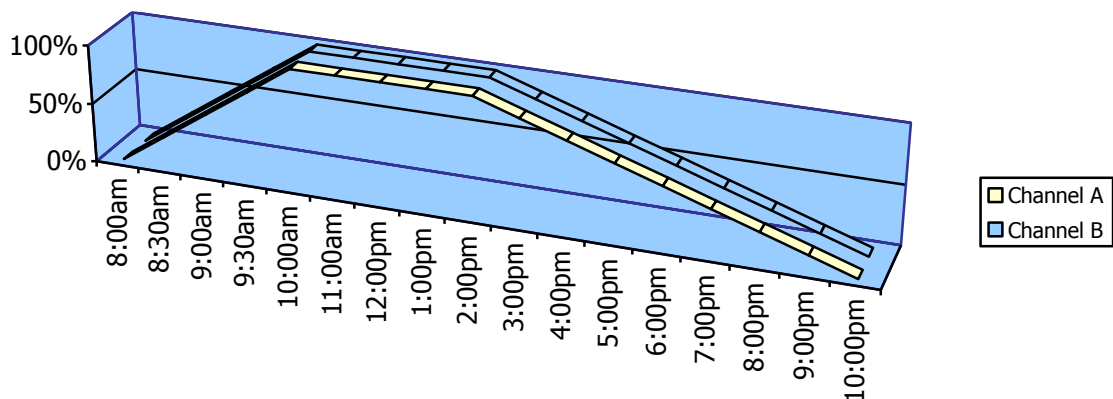
Understanding Time Points

There are a total of 4 Time Points. You can program different luminous output intensity at each Time Point to control the photoperiod and brightness of the system.

For example, the following table demonstrates how you could program the Time Points such that the system would increases light gradually from 8:00am, peaks at 10:00am-2:00pm then slowly decreases light until it is turned off at 10:00pm.

	TP1 08:00	TP2 10:00	TP3 14:00	TP4 22:00
Channel A	OFF	100%	100%	OFF
Channel B	OFF	100%	100%	OFF

The following diagram would illustrate how the 2 LED channels would behave once the above Time Points have been programmed.

Setting up Moon Light

Moon-Light can be programmed by simply assign one of the LED channels (preferably the blue LED channel) to operate at 1% brightness in the last Time Point.
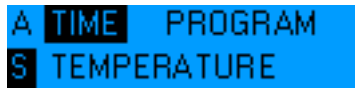
	TP1 08:00	TP2 10:00	TP3 14:00	TP4 22:00
Channel A	OFF	100%	100%	OFF
Channel B	1%	100%	100%	1%

Programming Time Points

1. **Press and <u>hold</u>** ⊙ **Control Dial for 3 seconds to enter setup.**

You will see three settings here, Time, Program and Temperature.

```
A TIME  PROGRAM
S TEMPERATURE
```

2. **Rotate** ⊙ **Control Dial to select PROGRAM and press** ⊙ **Control Dial.**

You can now program the Time Points.

3. **Rotate** ⊙ **Control Dial to select the Time Point (1-4).**

```
A TP: 1      12:00
S A:100%  B:100%
```

4. **Press** ⊙ **Control Dial to switch to the timer, rotate** ⊙ **Control Dial to change it.**

The timer will increment/decrement in 30-minutes intervals. Note: Changes you made to a Time Point will affect all subsequence Time Points to prevent erroneous behavior. For example, if you change the timer to a larger value than the next Time Point, the system will push the next Time Point to the same time, with a maximum value of 23:30.

5. **Press** ⊙ **Control Dial to switch to Channel A.**

```
A TP: 2      12:00
S A:100%  B:100%
```

6. **Rotate** ⊙ **Control Dial to adjust brightness for this channel then press**

⊙ **Control Dial to switch to the next channel and repeat #5 and #6.**

Note: At 0% intensity the channel is turned OFF.

7. **Repeat #3 to #7 for all 4 Time Points.**

8. **Press** ⊙ **Select Button to confirm and return to main menu.**
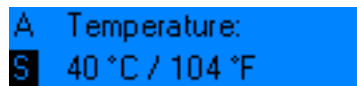
The settings are now saved.

Adjusting Active Cooling Setting

1. **Active Cooling means the minimum temperature the LED Module must reach before the fan will be turned on automatically.**

2. **Press and <u>hold</u> ⬤ Control Dial for 3 seconds to enter setup.**

3. **Rotate ⬤ Control Dial to select TEMPERATURE and press ⬤ Control Dial.**
   You can now adjust the Active Cooling Setting.

4. **To adjust the temperature, rotate ⬤ Control Dial.**

   There are 5 temperature settings: 40°C/104°F, 45°C/113°F, 50°C/122°F, 55°C/131°F and 60°C/140°F.

   ```
   A  Temperature:
   S  40 °C / 104 °F
   ```

5. **Press ◎ Select Button to confirm and return to main menu.**

The setting is now saved.

Maxspect Ltd. warrants all Maxspect™ Mazarra LED Lighting System products against defects in workmanship for a period of 12-months from the date of purchase. If a defect exists during the warranty period, Maxspect Ltd. at its option will either repair (using new or remanufactured parts) or replace (with a new or remanufactured unit) the product at no charge.

THE WARRANTY WILL NOT APPLY TO THE PRODUCT IF IT HAS BEEN DAMAGED BY MISUSE, ALTERATION, ACCIDENT, IMPROPER HANDLING OR OPERATION, OR IF UNAUTHORIZED REPAIRS ARE ATTEMPTED OR MADE. SOME EXAMPLES OF DAMAGES NOT COVERED BY WARRANTY INCLUDE, BUT ARE NOT LIMITED TO, USING AFTER-MARKET LED BULBS AND MODIFICATION OF THE CIRCUITRY, WHICH ARE PRESUMED TO BE DAMAGES RESULTING FROM MISUSE OR ABUSE.

DISCLAIMER OF CONSEQUENTIAL AND INCIDENTAL DAMAGES:

You and any other user of Maxspect Ltd. products shall not be entitled to any consequential or incidental damages, including without limitation, loss of use of the unit, inconvenience, damage to personal property, phone calls, lost income or earnings. This warranty gives you specific legal rights and you may also have other rights, which vary from state to state.

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IN NO EVENT WILL MAXSPECT LTD BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY DEFECT IN THE PRODUCT OR ITS DOCUMENTATION.

The warranty, disclaimer, and remedies set forth above are exclusive and replace all others, oral or written, expressed or implied. At no time will any Maxspect Ltd. dealers, agents, or employees be authorized to make any modifications, extension, or addition to this warranty.

Some states do not allow the exclusion or limitation of implied warranties or liability for incidental or consequential damages, so the above limitation or exclusion may not apply to you.

Controller Unit	Dimensions (D x L)	Φ120mm × 60mm x 30mm
		(4.7" x 2.4" x 1.2")
	Weight	300g (10 oz)

LED Module	Dimensions (D x L)	Φ230mm × 230mm x 35mm
		(9" x 9" x 1.5")
	Weight	2kg (4.4 lb)

Power Supply	Input Voltage	AC 100 - 240V / 50 - 60 Hz
	Output Voltage	36V
	Output Current	3.5A

LED Bulbs

Channel	Make/Model	Quantity	Luminous Flux & Driven Current	Color Temperature / Wavelength
A	Cree XLamp® XP-E R3	8	280 lm @ 1000mA	Cool White 7000-8000K
B	Cree XLamp® XP-E M2	4	69 lm @ 1000mA	Blue 465-485nm
	Cree XLamp® XP-E 16	4	1000mW @ 1000mA	Royal Blue 450-465nm

Note:

Specifications are subject to change without notice.

Weight and dimensions are approximate.

Maxspect. Innovative, efficient and versatile.

S-Series Owner's Manual Version 1.5.0